

Claims

[c1] A dynamic prosthetic foot having a split upper ankle and a heel with differentiated elasticity, comprising:

- a sole;
- an ankle part that separates from said sole along a transverse parting line;
- said ankle part including a gradual upward bend, a horizontal part, and a vertically extending part;
- a vertically extending slot formed in said vertically extending part;
- said vertically extending slot formed mid-breadth of said vertically extending part to divide said vertically extending part into two equal size parts, said two equal size parts forming a lateral pylon support and a medial pylon support, respectively;
- a heel part that separates from said ankle part along said transverse parting line;
- said heel part including a central support, a central extension, a lateral heel extension, and a medial heel extension;
- said central support having a leading end disposed in underlying, supporting relation to said horizontal part of said ankle part and a downwardly turned return bend formed in a trailing end thereof;
- said central extension having a leading end secured to a trailing free end of said central support and a trailing end having a gradual upward bend formed therein;
- said lateral heel extension and said medial heel extension being integral and generally coplanar with said sole and being disposed on opposite sides of said central support and said central extension;
- whereby said central support, central extension, lateral extension, and medial extension of said heel part provide differentiated responses to impact forces created by ambulation.

[c2]

The dynamic prosthetic foot of claim 1, further comprising:

- a lateral pylon connector secured to said lateral pylon support, said lateral pylon connector adapted for connection to a first prosthetic pylon; and
- a medial pylon connector secured to said medial pylon support, said medial

pylon connector adapted for connection to a second prosthetic pylon.

- [c3] The dynamic prosthetic foot of claim 1, wherein said transverse parting line is approximately half way between a leading end of said sole and a trailing end of said central extension.
- [c4] The dynamic prosthetic foot of claim 1, wherein said central extension has a trailing end that trails the respective trailing ends of said lateral heel extension and said medial heel extension.
- [c5] The dynamic prosthetic foot of claim 1, wherein said leading end of said central extension is coextensive with the free end of said central support.
- [c6] A dynamic prosthetic foot having a split upper ankle and a heel with differentiated elasticity, comprising:
- a sole;
 - an ankle part that separates from said sole along a transverse parting line;
 - said ankle part including a gradual upward bend, a horizontal part, and a vertically extending part;
 - a vertically extending slot formed in said vertically extending part;
 - said vertically extending slot formed mid-breadth of said vertically extending part to divide said vertically extending part into two equal size parts, said two equal size parts forming a lateral pylon and a medial pylon, respectively;
 - a heel part that separates from said ankle part along said transverse parting line;
 - said heel part including a central support, a central extension, a lateral heel extension, and a medial heel extension;
 - said central support having a leading end disposed in underlying, supporting relation to said horizontal part of said ankle part and a downwardly turned return bend formed in a trailing end thereof;
 - said central extension having a leading end secured to a trailing free end of said central support and a trailing end having a gradual upward bend formed therein;
 - said lateral heel extension and said medial heel extension being integral and generally coplanar with said sole and being disposed on opposite sides of said

central support and said central extension;
whereby said central support, central extension, lateral extension, and medial extension of said heel part provide differentiated responses to impact forces created by ambulation.

- [c7] The dynamic prosthetic foot of claim 6, wherein each of said lateral and medial pylons is about twenty inches (20") in length and is cut to size by a prosthetist when a patient is fitted with said dynamic prosthetic foot.
- [c8] The dynamic prosthetic foot of claim 6, wherein said transverse parting line is approximately half way between a leading end of said sole and a trailing end of said central extension.
- [c9] The dynamic prosthetic foot of claim 6, wherein said central extension has a trailing end that trails the respective trailing ends of said lateral heel extension and said medial heel extension.
- [c10] The dynamic prosthetic foot of claim 6, wherein said leading end of said central extension is coextensive with the free end of said central support.
- [c11] The dynamic prosthetic foot of claim 7, wherein said lateral and medial pylons are adapted to be laminated at respective uppermost ends thereof to a prosthetic socket.
- [c12] The dynamic prosthetic foot of claim 7, wherein said lateral and medial pylons are adapted to be connected at respective uppermost ends thereof to a connector member and wherein said connector member is laminated to a prosthetic socket.
- [c13] The dynamic prosthetic foot of claim 7, wherein said lateral and medial pylons are adapted to be connected at respective uppermost ends thereof to a pyramid-receiving connector that engages a pyramid that depends from said prosthetic socket.